

ABSTRACT

A method of coordinating channel power information in a wavelength division multiplexed (WDM) optical communication system is disclosed. The method determines weighting values for each channel of the WDM signal based on channel launch powers. A source data object may be used to transmit the channel weights and channel information from network elements having channel sources such as transmitters to downstream network elements. Block data objects may be used to identify channel blocks in the system and are also transmitted downstream. The source and block objects may be correlated to determine which channels are in-view at a particular point in the network and thereby determine which of the channel weights should be used as a basis for managing the network at that point. A WDM system is also disclosed which may actively control channel launch powers and feed the adjusted launch powers into the method of coordinating channel power information.